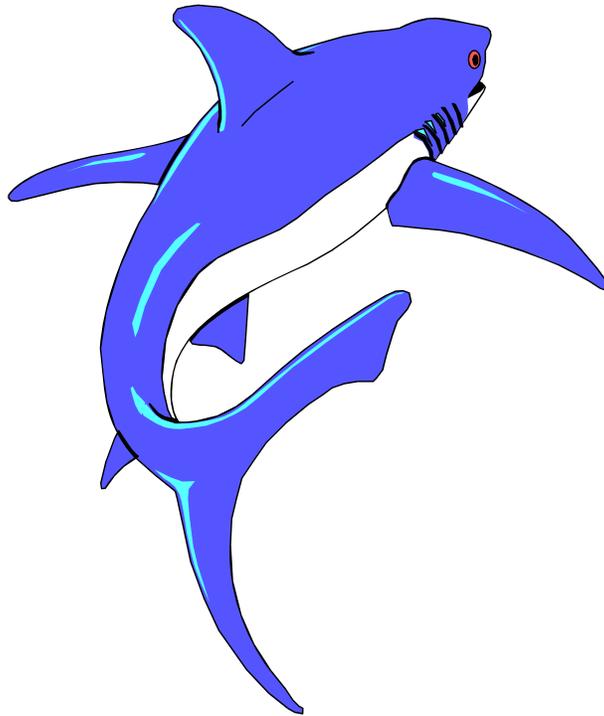


**FISHERY MANAGEMENT PLAN  
FOR SHARKS OF THE ATLANTIC OCEAN**



Prepared by  
National Marine Fisheries Service  
National Oceanic and Atmospheric Administration  
U.S. Department of Commerce  
February 25, 1993

## **PREFACE**

---

This Final Fishery Management Plan for Sharks of the Atlantic Ocean, as issued in March 1993, has been revised since issued in preliminary form on December 11, 1992, and has been approved in final by the Assistant Administrator for Fisheries (Assistant Administrator). The Assistant Administrator preliminarily approved and issued the FMP on December 11, with final approval contingent upon completion of the 30-day cooling-off period for the Final Environmental Impact Statement (FEIS) as provided by the National Environmental Policy Act. The FEIS in support of the FMP and the final rule was filed with the Environmental Protection Agency on December 11, 1992; a notice of availability of the FEIS was published on December 18, 1992, and the cooling-off period ended on January 18, 1993. The Assistant Administrator approved the FMP in final on February 25, 1993. The FMP will be implemented by publishing final regulations as soon as the Department of Commerce and the Office of Management and Budget give the appropriate clearances.

After considering the public comments received during the cooling-off period, the Assistant Administrator directed certain limited changes in the final FMP and FEIS documents. These changes include the following: (1) editorial changes for purposes of clarity and correction of minor errors; (2) change in the permit conditions associated with accepting a Federal shark fishing permit; and (3) the composition of the Operations Team. All changes in the FMP as approved in final are reflected in the implementing final regulations.

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## PROLOGUE

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The National Marine Fisheries Service (NMFS) prepared the Fishery Management Plan for Sharks of the Atlantic Ocean (Shark FMP) for the Secretary of Commerce (Secretary) under authority of the Magnuson Fishery Conservation and Management Act (Magnuson Act). Section 304(c) of the Magnuson Act authorizes the Secretary to prepare and implement a fishery management plan (FMP) with respect to any fishery needing management and conservation under certain circumstances. Section 304(f) gives the Secretary management authority over Atlantic highly migratory species which are defined to include oceanic sharks.

The five Regional Fishery Management Councils (Councils) responsible for developing FMPs under the Magnuson Act in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea recognized the need for the Shark FMP due to increasing catches attributed to the demand for shark fins and meat. The expected lengthy schedule for developing and implementing a five-Council FMP would further threaten overfished shark resources. On June 3, 1989, the five Councils recommended that the Secretary develop a shark FMP that would: (1) cap the growth of the commercial fishery at current levels, (2) establish a recreational bag limit, (3) eliminate finning, and (4) initiate a data collection program. Their concern was that the late maturity and low fecundity of sharks, coupled with increasing fishing mortality, could result in long-term damage to shark stocks. Conservation and wise management of this important resource therefore required timely action. In response to the Councils' request, NMFS began preparation of the FMP in 1989. The management strategy in the Shark FMP addresses these requests.

In 1978, the Secretary implemented two Preliminary Management Plans (PMPs), conforming with the Magnuson Act requirement to control foreign harvest in U.S. waters. The Shark FMP adopts all management measures that apply to sharks in the "Atlantic Billfishes and Sharks PMP" and amendments to that FMP, including the requirement that all foreign vessels carry a U.S. observer, and disallows the retention of sharks by foreign vessels. The second PMP, "Foreign Trawl Fisheries of the Northwest Atlantic," is not affected by the Shark FMP.

In response to the Councils' request, the National Marine Fisheries Service (NMFS) began preparation of the Secretarial FMP for Sharks of the Atlantic Ocean (FMP) in 1989 and adopted a management approach intended to address the Councils' specific concerns. Since 1989, three draft FMPs and a final FMP have been prepared.

The first draft, completed in October 1989, was presented at 22 coastwise public hearings. Based in part on the extensive comments received, NMFS determined that an updated stock assessment for Atlantic sharks would be beneficial.

In December 1990, the NMFS Southeast Fisheries Science Center completed a new shark stock assessment that required significant changes in the FMP. In November 1990, the Fishery Conservation Amendments of 1990 (Public Law No. 101-627) transferred from the Regional Fishery Management Councils (Councils) to the Secretary of Commerce (Secretary) full management authority for Atlantic highly migratory species, including "oceanic sharks." Public Law No. 101-627 directs the Secretary to prepare, amend, and implement fishery management plans and to pursue international fishery management measures for Atlantic highly migratory species. These statutory changes also required modifications to the FMP. The second draft FMP, completed in April 1991, was presented at eight additional coastwise public hearings.

The third draft FMP, referred to as the "proposed FMP," was prepared after considering the additional public comments. The proposed FMP, dated October 28, 1991, was released on

January 8, 1992, to the public for a 60-day review and comment period ending March 9, 1992. Proposed regulations to implement the FMP were published for public comment from June 8 through July 20, 1992. Comments were received from some 1,159 entities, including recreational and commercial fishermen, fish dealers or processors, charter vessels and headboat owners, organizations representing diverse fishery interests (such as recreational and commercial fishermen, environmental concerns, animal rights, and the charter industry), state and Federal agencies, and the Councils. Support for the FMP was strong and from a broad cross section of interests. Opposition to the FMP came primarily from those objecting to the short-term, adverse economic impacts associated with the restrictive quotas designed to rebuild overfished shark resources. Specific objections came from the State of North Carolina, certain North Carolina fishermen, several commercial pelagic fishermen's associations, and individual shark dealers and processors along the Atlantic and Gulf coasts.

Recent Magnuson Act amendments authorize the Secretary to manage oceanic sharks in the Atlantic. The Secretary has determined that all species of sharks listed in the management unit of the FMP are oceanic and subject to Secretarial authority and management.

An Operational Team (OT) will be established to monitor and adjust management measures, including sharks to be included in the management unit. The OT consists of representatives of the Councils (including Council members, staff, and advisory panel or scientific committee members), the International Convention for the Conservation of Atlantic Tuna (ICCAT) Advisory Committee, and NOAA scientists and management personnel.

### **Metric System Conversion Table**

The Shark FMP uses the metric system. The following common conversions are provided:

1.0 centimeter (cm) = 0.394 inches  
1.0 meter (m) = 3.281 feet  
1.0 meter = 0.547 fathoms  
1.0 kilometer (km) = 0.621 statute miles  
1.0 kilometer = 0.540 nautical miles (nm)  
1.0 square kilometer (sq km) = 0.386 square miles  
1.0 kilogram (kg) = 2.205 pounds  
1000.0 kilograms = 1 metric ton (mt)

Comments or requests for copies of the Shark FMP should be sent to:

Mr. Richard H. Schaefer  
Director, Office of Fisheries Conservation  
and Management  
National Marine Fisheries Service (NOAA)  
1335 East-West Highway  
Silver Spring, MD 20910  
Telephone (301) 713-2334

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---

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Paul Leach was the Chairman of the team that prepared the first and the second draft FMPs.

Michael E. Justen was the Chairman of the team that prepared the third draft FMP, final FMP, Draft and Final Environmental Impact Statements, and implementing regulations. The other team members were Davis A. Hays and W. Perry Allen.

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## **0.0 SUMMARY**

---

### **0.1 INTRODUCTION**

Sharks are a diverse group of about 350 species ranging from whale sharks up to 12 meters (m) in length to the tiny pygmy shark that reaches only a few centimeters in length. Sharks grow very slowly, take many years to mature, have long reproductive cycles, and produce few young. Most are migratory and several are transoceanic. Migrations are tuned to temperature, photoperiod, and reproductive cycles. Adults usually congregate in specific areas to mate and females travel to specific nursery areas to pup. With few exceptions, sharks are armed with acute senses that allow them to be very effective predators. Since they have evolved as apex predators, they are not equipped to withstand predation themselves. Therefore, the appearance of man as a predator has confronted sharks with a mortality source they cannot withstand--intense exploitation.

Historically, there have been few shark fisheries in North America. While small, localized shark fisheries existed throughout the southeast for many years, sharks were underutilized until the late 1930s. Starting in 1938, intensive shark fisheries developed in several states, sparked by the high demand for the vitamin A-rich shark livers. These fisheries ceased to operate due to a combination of factors; i.e., synthesis and importation of vitamin A, low demand for other shark products, and overfishing. New shark fisheries developed in the 1980s, fueled by a domestic demand for shark meat and a foreign demand for shark fins that led to the controversial practice of "finning." Finning is removing the valuable fins from sharks and discarding the carcass. Although the extent of finning is unknown, this practice is perceived as wasteful and has brought considerable outcry from the public.

The Secretary has determined that corrective action is necessary to protect shark resources from overfishing. The Shark FMP addresses 73 species of sharks inhabiting U.S. Atlantic waters and includes 39 of these species in the management unit. Sharks are managed on the basis of the best and most recent scientific data available. The present state of knowledge precludes management on an individual species basis, although the Shark FMP segregates species for management and assessment purposes into species groups; i.e., large coastal, small coastal, and pelagic. Immediate restrictions will be placed on fishing activities on the managed shark species.

### **0.2 PREPARATION OF THE FMP**

On June 3, 1989, the five Fishery Management Councils established by the Magnuson Fishery Conservation and Management Act (Magnuson

Act) to cover the east coast, the Gulf of Mexico, and the Caribbean Sea, requested that the Secretary develop a shark Fishery Management Plan (FMP) that would: (1) cap the growth of the commercial fishery; (2) establish a recreational bag limit; (3) eliminate finning; and (4) initiate a shark fishery data collection program. The Councils indicated that there was a critical need for an Atlantic shark FMP due to increasing commercial fishing pressures and the biological characteristics of sharks. The Councils were concerned that if they instead of the Secretary were to develop and implement a five-Council FMP, there would be unacceptable delays in establishing a management program to prevent overfishing, rebuild any overfished stocks, and prevent wasteful finning practices.

In response to the Councils' request, the National Marine Fisheries Service (NMFS) began preparation of the Secretarial FMP for Sharks of the Atlantic Ocean (FMP) in 1989 and adopted a management approach intended to address the Councils' specific concerns. Since 1989, three draft FMPs and a final FMP have been prepared.

The first draft, completed in October 1989, was presented at 22 coastwise public hearings. Based in part on the extensive comments received, NMFS determined that an updated stock assessment for Atlantic sharks would be beneficial.

In December 1990, the NMFS Southeast Fisheries Science Center completed a new shark stock assessment that required significant changes in the FMP. In November 1990, the Fishery Conservation Amendments of 1990 (Public Law No. 101-627) transferred from the Regional Fishery Management Councils (Councils) to the Secretary of Commerce (Secretary) full management authority for Atlantic highly migratory species, including "oceanic sharks." Public Law No. 101-627 directs the Secretary to prepare, amend, and implement fishery management plans and to pursue international fishery management measures for Atlantic highly migratory species. These statutory changes also required modifications to the FMP. The second draft FMP, completed in April 1991, was presented at eight additional coastwise public hearings.

The third draft FMP, referred to as the "proposed FMP," was prepared after considering the additional public comments. The proposed FMP, dated October 28, 1991, was released on January 8, 1992, to the public for a 60-day review and comment period ending March 9, 1992. Proposed regulations to implement the FMP were published for public comment from June 8 through July 20, 1992. Comments were received from some 1,159 entities, including recreational and commercial fishermen, fish dealers or processors, charter vessels and headboat owners, organizations representing diverse fishery interests (such as recreational and commercial fishermen, environmental concerns, animal rights, and the charter industry), state and Federal agencies, and the

Councils. Support for the FMP was strong and from a broad cross section of interests. Opposition to the FMP came primarily from those objecting to the short-term, adverse economic impacts associated with the restrictive quotas designed to rebuild overfished shark resources. Specific objections came from the State of North Carolina, certain North Carolina fishermen, several commercial pelagic fishermen's associations, and individual shark dealers and processors along the Atlantic and Gulf coasts.

During the public comment periods held on the proposed FMP and on the proposed rule, significant new information was received from fishermen, fish buyers, and state fishery management agencies. This information included: (1) fishery removals not previously recorded; (2) sizes of landed sharks; and (3) the numbers of commercial fishing vessels targeting sharks. The additional information significantly changed the analytic results of the last stock assessment done in 1990 (see Parrack, M.L., 1990, A Study of Shark Exploitation in U.S. Atlantic Coastal Waters during 1986-1989).

To ensure that all FMP management measures are based upon the best scientific information available, NMFS completed a revised assessment of the condition of the large coastal species group. The large coastal species group includes the principal species taken in the directed shark fishery: sandbar, blacktip, dusky, spinner, silky, bull, bignose, tiger, sand tiger, lemon, night, nurse, great hammerhead, and scalloped hammerhead sharks.

The revised assessment was reviewed by a scientific peer committee consisting of both outside scientific experts and NMFS scientists. The Review Committee issued its final report on November 23, 1992 (see Appendix II, Report of the Atlantic Coastal Shark Fishery Analysis Review, November 23, 1992). The Review Committee reported evidence of overfishing for the large coastal species group during 1986 through 1992 (except for 1987 and 1990). The Committee recommends that calendar year 1993 landings for the large coastal should be reduced below the calendar year 1991 landings level of 4,319 mt dressed weight

The current assessment of shark resources in the U.S. Atlantic EEZ indicates an MSY of 3,800 dressed weight mt for large coastal sharks, the only overfished group of species. The estimated MSY for the small coastal species group is 2,590 mt. The estimated MSY for the pelagic species group is 1,560 mt, the average of 1986-1991 landings, since data to carry out a quantitative assessment were unavailable. Current landings indicate significant exploitation of this group.

Under the FMP, a specific shark species group is considered overfished as follows: (1) if the stock size of the group is at a level that is determined, based on the best scientific

information available, to be sufficient to produce MSY on a continuing basis, overfishing is defined as a fishing mortality rate (F) that exceeds the fishing mortality rate that would produce MSY on a continuing basis ( $F_{MSY}$ ); or, (2) if the stock size is below the level that is determined, based on the best scientific information available, to be sufficient to produce MSY on a continuing basis, overfishing is defined as a fishing mortality rate that exceeds the rate that is consistent with a rebuilding program established under this FMP.

The current assessment indicates that the large coastal species group is overfished since catches have exceeded resource production since 1987. Stock size estimates indicate that the small coastal and pelagic species groups appear to be fully utilized.

The FMP's management measures, which include a rebuilding program for the recovery of the large coastal species group, should stabilize fishing mortality at or just below the level that would produce MSY for each species group. The large coastal and pelagic species group each have semi-annual quotas that will become effective during periods from January 1 to June 30, and from July 1 to December 31. As the commercial quota for each species group is reached the commercial fishery for sharks within that group will be closed. The fishing year is from January 1 through December 31. Overages or under-used portions of the semi-annual quotas will be adjusted by the next semi-annual quotas. Total Allowable Catch (TAC) for each group will be reevaluated yearly by the Operations Team (OT).

To ensure that the large coastal group is rebuilt to the MSY level, NMFS has selected the Committee's recommended second option (Option 2--see Table 4 of the Committee Report) establishing 1993 total landings of 2,900 mt dressed weight (a 34% reduction from the 1991 landings; a 29% reduction from the 1986-91 annual average landings). Under this option, stock abundance will rebuild 5% each year back to the MSY level (estimated by NMFS to be 14,900 mt dressed weight) by 1995. The Review Committee's rebuilding schedule shows that annual fishery yields would increase about 5% each year but would not equal MSY until 1999. Option 3 of the Committee Report requires a 1993 landings limit of 2,311 mt (a 50% reduction from the 1991 level; a 44% reduction from the 1986-91 annual average). This option achieves a 10% annual increase in stock abundance until the MSY level is reached. NMFS determined that this option would cause unacceptable short-term costs in lost fishery revenues, and is not necessary to achieve stock rebuilding in a reasonable time period.

While NMFS adopted option 2 for stock rebuilding and will implement the recommended calendar year total landings (and derived calendar year commercial quotas) from 1993 to 1995, NMFS

believes that the large coastal species group will be rebuilt by 1995 and at that point the stock size should be sufficient to provide MSY. NMFS does not agree with the Committee Report's conclusion that MSY yields will not occur under its rebuilding schedule until 1999.

The commercial fishery for the pelagic species group will close when either of the semi-annual quotas of 290 mt for the 1993 fishing year is reached or projected to be reached. This process will continue for subsequent years. The pelagic species group includes species taken primarily as bycatch in the tuna and swordfish fisheries. These include: shortfin mako, longfin mako, thresher, bigeye thresher, oceanic whitetip, porbeagle, and blue sharks.

There are no commercial fishing restrictions planned for the small coastal species group at the present time. Current fishing mortality is below the MSY level of 2,590 mt. No significant commercial landings of species in the small coastal group have been reported. The small coastal group includes: Atlantic and Caribbean sharpnose, bonnethead, blacknose, smalltail, finetooth, and Atlantic angel sharks. These species, especially sharpnose, are taken primarily as bycatch in the shrimp trawl fishery, and a small portion is taken by the recreational fishery.

There is no recreational fishing season or "quota" per se; however, the recreational bag limit is expected to keep landings of large coastal species group below 464 mt and landings of the pelagic species group below 980 mt. Thus, combined recreational landings will total less than the 1,444 mt assigned to the recreational sector from the TAC for the large coastal and pelagic species groups. The bag limit is four sharks per boat per trip for the combined large coastal and pelagic species groups. The daily bag limit for the small coastal species group is five sharks per person. The latter bag limit has minimal conservation value, but does limit harvest and encourage conservation by the recreational angler, while providing sufficient meat for the dinner table. The five-shark bag limit is also consistent with Texas regulations. The Texas bag limit reflects that this state is the center for a headboat fishery for sharpnose sharks.

Sharks taken other than as part of a quota or bag limit must be released uninjured. There is a prohibition on the sale of recreationally caught sharks or shark products taken in the EEZ, except aboard permitted charter vessel or headboat.

Other management measures include a ban on finning, and a data collection and reporting system. All fishermen harvesting and selling meat or fins from the EEZ, must purchase an annual Federal permit and submit reports or other information requested by NMFS. Permits will be required within 60 days of

implementation of the Shark FMP. Vessel permit applicants must have derived 50 percent or more of their earned income from the sale of fish or fish products from commercial or charter vessel, or headboat operations, or more than \$20,000 in the sale of fish during one of three years before the application. The recipient of a Federal permit must agree that the vessel's fishing, catch, and gear will be subject to Federal shark fishing regulations regardless of where the fishing occurs (i.e., in state, Federal, or international waters) with the exception that if a permitted vessel fishes only in state waters on a given trip, the vessel's fishing, catch, or gear may be subject to the more restrictive state requirements for that trip. A maximum of 5% by weight of wet fins to dressed weight of shark carcass may be landed. Permitted fishermen may not store fins aboard their vessel after the first point of landing.

To assess impacts of the shark fishery on marine mammals and endangered species, and to obtain better information on discards, observers must be accommodated on permitted vessels when requested by NMFS. Besides mandatory logbooks, statistical data will be collected at the docks through interviews with selected commercial fishermen via the NMFS Trip Interview Program or by special surveys. Persons conducting recreational shark fishing tournaments must submit reports to NMFS, if requested.

A "framework regulatory adjustment procedure" will allow pre-season adjustment of these measures as better information and understanding are acquired. The framework procedure allows changes in: commercial quotas, trip limits, recreational bag limits, species size limits, permitting and reporting requirements, MSYs, management unit, species groups, and fishing year. The OT, composed of representatives of NMFS, the five Councils (including Council members, staff, and advisory panel or scientific committee members), and the International Commission for the Conservation of Atlantic Tuna (ICCAT) Advisory Committee, is the primary group that will monitor the effectiveness of the Shark FMP and guide future actions. Regulatory actions in other fisheries, such as the mandatory use of TEDS in the shrimp trawl fishery, will further reduce shark mortality, particularly in the small coastal species group. More stringent management measures will be imposed if new information suggests that overfishing is occurring in any of the species groups. Allowable landings will be increased if new information shows that a safe expansion of the fishery can occur. The OT will coordinate such action through the framework regulatory adjustment procedure.

### **0.3 FINAL MANAGEMENT MEASURES**

The final FMP and implementing interim final and final regulations contain the following fishery management measures:

- (1) A fishery management unit containing 39 frequently caught species of Atlantic sharks. These species are separated into three groups for assessment and regulatory purposes: large coastal (22 species), small coastal (7 species), and pelagic species (10 species). Thirty-four additional species are included in the FMP for data collection purposes but are not part of the management unit--most of these species are small, deepwater sharks taken incidentally in directed swordfish and tuna longline fisheries. This group also includes dogfishes that are harvested in trawl fisheries in shallow water;
- (2) A fishing year of January 1 through December 31;
- (3) Annual commercial quotas based on a calendar year for the large coastal and pelagic species groups; each annual quota will be divided into equal semi-annual quotas that will apply to the fishing periods--January 1 through June 30 and July 1 through December 31. The 1993 annual quotas are 2,436 mt (dressed weight) for large coastal species group and 580 mt (dressed weight) for the pelagic species group;
- (4) Closure of the commercial fishery for a species group for the remainder of the half year fishing period when the commercial semi-annual quota for that species group is reached or is projected to be reached. All sharks in the FMP management unit landed and sold in the U.S. by U.S. fishermen will be counted against any applicable commercial quota established by the FMP. After a fishery closure, permitted charter vessels and headboats will be allowed to fish for sharks under the permit conditions and under the bag limits, but landed sharks cannot be sold;
- (5) Bag limits for the recreational fishery of four sharks per fishing vessel per trip for large coastal and pelagic species combined and five sharks per person per day for small coastal species;
- (6) A requirement for annual permits for commercial fishing vessels catching sharks in the EEZ. A condition of the permit is that the recipient must agree to abide by Federal regulations for all sharks caught despite where the fishing occurs (state, Federal (EEZ), or international waters), unless the permitted vessel fishes only in state waters on a given fishing trip, in which case a state may apply its more restrictive requirements for that trip. To qualify for the Federal commercial permit, the applicant must have derived, during any one of three preceding years, more than 50 percent of his or her earned income from commercial fishing (sale of catch) or from charter vessel or headboat operations, or have had at least \$20,000 in gross receipts from the sale of fish;

- (7) A limitation on the sale of sharks harvested in Federal waters to those sold by owners or operators of permitted vessels;
- (8) A requirement that permitted vessels land fins and carcasses in a weight ratio of 5 percent or less;
- (9) A requirement that sharks not retained and landed as part of the commercial quota or under the recreational bag limits be released in a manner ensuring maximum probability of survival;
- (10) A requirement that all owners or operators of permitted vessels submit to NMFS copies of weighout slips (trip tickets or weighout slips); requirement for submission of logbook reports from selected owners, operators, and persons conducting shark fishing tournaments;
- (11) A requirement that selected permitted vessels accommodate observers;
- (12) An authorization for the Assistant Administrator to implement or adjust certain management measures following an established framework regulatory adjustment procedure;
- (13) A reduction of the total allowable level of foreign fishing in U.S. waters for the managed species to zero; and
- (14) Establishment of an FMP Operations Team (OT) composed of representatives from the five Regional Fishery Management Councils (Councils), NOAA scientists and management personnel, and the ICCAT Advisory Committee to monitor the fishery and FMP, and to recommend regulatory adjustments for implementation by the Assistant Administrator.

#### **0.4 OTHER MATTERS**

State cooperation is essential to prevent overfishing. States are urged to adopt uniform and compatible regulations. Sixty-four percent of recreational fishing mortality (by number) occurs in state waters, and 14 percent of commercial harvests are within state waters. Coordinated international management is also necessary because many sharks migrate across international boundaries. Hopefully, the Shark FMP, the first Federal attempt to safeguard shark resources in the Western North Atlantic, will stimulate coordinated management.

Approximately 124 vessels operating in U.S. waters of the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea spend a portion of their time targeting shark. The directed shark fishery is pursued with longline gear, although approximately 5 vessels use net gear. About 6,140 mt (86 percent of commercial landings in

1989) were caught on longline gear. Of the remaining 981 mt of commercial landings, 621 mt were taken by gillnetters.

Longlines and net gear are known to kill marine mammals and sea turtles. Components of the shark fishery are known to interact or suspected of interacting with marine mammals. With respect to the drift gillnet fishery that targets schooling blacktip sharks, no data presently exist to suggest that significant numbers of marine mammals or endangered species are incidentally captured in this fishery.

The bottom longline fishery in the South Atlantic and Gulf of Mexico for snapper-grouper and other reef fish (including sharks) and the pelagic hook-and-line fishery in the Gulf of Maine, southern New England, and the Mid-Atlantic for tuna, shark, swordfish are listed as Category III fisheries (Federal Register, Vol. 56, No. 26, February 7, 1991). These fisheries are required to report any lethal takes to NMFS within 10 days of the interaction. Components of the shark fishery listed as Category II are the Florida east coast gillnet fishery and the Atlantic Ocean, Caribbean, and Gulf of Mexico tuna, shark, swordfish longline fishery. They are required to register their vessels in the Marine Mammal Exemption Program and to complete marine mammal logs that document the vessels' daily fishing effort and any marine mammal interactions. Observers are required on the Atlantic Ocean, Caribbean, and Gulf of Mexico swordfish, tuna, shark drift gillnet fishery. Registration and reporting requirements for Category I vessels are the same as for Category II.

On July 5, 1989, a Biological Opinion (BO) concerning the issuing of exemptions for commercial fishing operations under Section 114 (Marine Mammal Exemption Program) of the Marine Mammal Protection Act (MMPA) concluded that the issuance of exemptions was not likely to jeopardize the continued existence of any listed species. The requirement for an observer program to document incidental capture and mortality of endangered/threatened species was included in the incidental take statement.

On September 7, 1989, a Section 7 consultation under the Endangered Species Act (ESA) was conducted by the SEO on the potential impacts of the management action proposed in the initial draft of the Shark FMP. The consultation concluded that the proposed management measures would not jeopardize the continued existence of threatened or endangered species, but that the fishery may adversely affect listed species.

On April 2, 1991, a Biological Assessment (BA) discussing the effects of the fisheries and the Shark FMP on listed species was submitted by the SEO with a request for initiation of consultation pursuant to Section 7 of the ESA. The assessment concluded that neither the Shark FMP nor the fisheries would

jeopardize the recovery or existence of any endangered or threatened species or their habitat, but the shark fisheries may adversely affect listed species. On September 23, 1991, the resulting BO concurred with this conclusion.

In July 1992, the shark gillnet fishery came under suspicion of taking sea turtles when over 20 loggerhead turtles stranded on Cumberland Island, Georgia during a 10-day period. Three shark gillnet vessels were reportedly fishing off this island during this period. On October 13, 1992, (57 FR 46815) NMFS published a temporary observer requirement in the shark gillnet fishery. This rule was in effect from October 7 through November 5, 1992. Under this regulation, NMFS could place observers on these vessels to determine whether these vessels take turtles. The accompanying biological opinion analyzed the impact of this fishery on threatened and endangered sea turtles. That opinion reemphasized the need for an observers program to determine the impact of this fishery on sea turtles and established an incidental take statement that allowed the documented take of by injury or mortality of: one Kemp's ridley, or one green, or one hawksbill, or one leatherback turtle, or two loggerhead turtles.

Implementation of the Shark FMP through the Federal permit, quotas, recreational bag limits and anti-finning regulations will reduce fishing effort. A reduction in marine mammal and endangered species mortality should occur with a reduction of shark fishing effort. The presence of on board observers will help quantify the impact of shark fishing on these species.

A request for state concurrence with NMFS's determination of consistency of the proposed management measures with state coastal zone management programs under the Coastal Zone Management Act (CZMA) was submitted to each state for review during the initial draft Shark FMP development process. The states of New York, New Jersey, New Hampshire, Massachusetts, Connecticut, South Carolina, Pennsylvania, Maryland, Florida, and Delaware concurred with the Federal consistency determination. Georgia, Maine, and Texas do not participate in the Federal coastal zone management program. North Carolina commented it would review the final Shark FMP. Louisiana, Mississippi, and Puerto Rico submitted comments, but did not state concurrence or disagreement with the consistency determination. Alabama, Rhode Island, Virginia, and the Virgin Islands did not respond.

NMFS prepared a second set of consistency determinations for the proposed Shark FMP that were sent to each state and territory for concurrence. Ten states concluded that the proposed measures were consistent with their coastal zone management plans. These states were Connecticut, Delaware, Florida, Mississippi, New York, North Carolina, Pennsylvania, Puerto Rico, South Carolina, and Virginia. Since none of the other states commented on the

Shark FMP, dated October 28, 1991, consistency was assumed under the CZMA procedures.

New Jersey objected to the proposed mako shark minimum size measures as inconsistent with its Coastal Management Program prepared and implemented under the Coastal Zone Management Act. The State argued that the different manner in which the size measure was to be applied to the commercial and recreational fisheries was inconsistent with the conservation objections of the State's program. This issue was resolved fully when the mako shark minimum size measure was dropped from the FMP because of inadequate biological justification.

NMFS will make a new CZMA consistency determination for the final FMP and interim final rule and send to all the affected states at the time of publication of the rule. In preparing and implementing the subsequent final rule, NMFS will consider the views of the coastal states and the general public regarding those FMP measures implemented through the interim final rule.

A Final Environmental Impact Statement is incorporated in the Shark FMP. There is no indication that the proposed management actions will have any adverse impact on the physical environment, public health, or safety. The proposed actions will have some impact on the fishery resource, but they are designed to rebuild the overfished large coastal group and protect the large pelagic and small coastal species groups from overfishing and potential collapse. There will be a short-term negative impact on the human environment as fishing restrictions become effective. However, these restrictions will produce long-term benefits, allowing fishing to continue indefinitely under a program of sustained yield from the shark resources.

A Federalism Assessment (FA) was prepared for the final FMP and implementing regulations. The FA concluded that the implementation of regulations managing sharks in Federal waters is not only required by Federal law, but clearly in the Nation's best interest since sharks are a valuable resource in danger of a stock collapse from overfishing. The Shark FMP does not limit the policy-making discretion of the states or preempt state laws. The proposed management measures and the implementing regulations are therefore consistent with the principles, criteria, and requirements of Executive Order 12612. The concepts of Federalism support the approval of the management measures and issuance of the regulations.

After implementing the FMP, the Assistant Administrator will establish the OT and will request that the OT review the management measures and supporting scientific information and make recommendations for management changes as necessary and appropriate.